

REMARKS

The Office Action dated January 3, 2005 presents the examination of claims 1-20.

Claims 1, 2, 9, and 18 are amended. Support for microbes in the form of a powder, tablet or pellet as added to claim 1 is found in the specification, such as in paragraphs [0019] and [0025]. Support for microbes that come into direct contact with a body of water as added to claim 1 is found in the specification, such as on page 7, line 17, which states that the microbes begin working once activated (i.e., come into contact) with water. Support is also found in the figures of the present application, such as in Figure 1, which shows the floater located in a body of water. Claim 2 is amended to recite "in or" on the body of water, which recitation was inadvertently omitted from the original version of claim 2. Support for this amendment is found in original claims 1 and 11, as well as Figure 1. Finally, claims 9 and 18 are amended to replace "Oppenheimer Formula" with "a formula." Support is found, for example, in paragraph [0027] of the specification.

Claim 21 is added. Support for the subject matter of claim 21 is found in paragraph [0029] of the specification.

Paragraphs [0004], [0005], [0015], and [0016] of the specification are amended to correct minor typographical errors. No new matter is inserted into the application.

Request for Interview

If, for any reason, the instant Reply under 37 C.F.R. § 1.111 does not place the present application into condition for allowance, or if the Examiner has any questions regarding the present application, he is respectfully requested to contact the undersigned at the telephone number listed below to conduct an interview, preferably prior to the issuance of any further Office Action(s).

Specification (Page 2, paragraph 1 of the Office Action)

The Examiner states it is unclear as to whether "Oppenheimer Formula" is a trademark. All recitations of "Oppenheimer Formula" have been removed from the claims and specification. Thus the issue is moot.

Rejection under 35 U.S.C. § 112, second paragraph (Page 2, paragraph 2 of the Office Action)

The Examiner rejects claims 9 and 18 under 35 U.S.C. § 112, second paragraph for allegedly being indefinite. Applicants respectfully traverse. Reconsideration and withdrawal of the instant rejection are respectfully requested.

As noted above, all recitations of "Oppenheimer Formula" have been removed from the claims. Thus, the instant rejection is overcome.

Rejection under 35 U.S.C. § 102(b) (Page 3, paragraphs 3 and 4 of the Office Action)

The Examiner rejects claim 1 under 35 U.S.C. § 102(b) for allegedly being anticipated by Francis '149 (U.S. Patent 4,670,149) or Resnick '724 (U.S. Patent 5,807,724). Applicants respectfully traverse. Reconsideration and withdrawal of the instant rejection are respectfully requested.

Claim 1, as amended, is directed to a hydrocarbon bioremediation system for removing hydrocarbons from a body of water, comprising: (a) a floater adapted to float in or on the surface of the body of water, and (b) microbes in the form of a powder, tablet or pellet associated with the floater, adapted to digest the hydrocarbons, wherein the microbes associated with the floater come into direct contact with the body of water. For the reasons discussed below, neither Francis '149 nor Resnick '724 anticipate claim 1 as amended.

Francis '149

Francis '149 discloses a bacterial incubator device to facilitate organic reduction of waste materials in a wastewater collection system. Francis '149 fails to describe a system wherein the microbes in the form of a powder, tablet or pellet are associated with the floater. Instead, Francis '149 merely provides an incubation device, which floats at the interface of organic matter and liquid (see column 3, lines 23-27), and contains high surface shaped elements, such as commercially available trickling filter balls, that provide surface area for the growth of bacteria (see column 4, lines 47-51).

When the bacterial incubator device is initially placed into the wastewater collection system, no bacteria are associated with the device (see, column 2, lines 48-63). Instead, the bacterial incubator device requires "bioaugmentation" of bacteria into the wastewater system. Specifically, one pound of dry bacterial cultures are mixed with two gallons water, allowed to sit for 4 to 6 hours, and then poured directly into the sewer leading to the bacterial incubator device (see, column 6, lines 13-21). The bacterial incubator device simply provides a surface on which the bacteria can grow once poured in liquid form into the wastewater system. Consequently, it is possible to add the bacterial charge once every 7 days, instead of every day as normally performed in the methods of the prior art.

In summary, Francis '149 fails to describe a system wherein the microbes in the form of a powder, tablet or pellet are associated with the floater. Withdrawal of the instant rejection is therefore respectfully requested.

Resnick '724

Resnick '724 discloses a method and device for the degradation of petroleum hydrocarbons with organisms encapsulated in wax. Resnick '724 further discloses that the encapsulated microbes may be contained in a buoyant container. However, Resnick '724 fails to disclose a device wherein the microbes associated with the floater come into direct contact with the body of water.

Specifically, the microbes of Resnick '724 are encapsulated inside a wax microshell. The microshell disclosed by Resnick '724 is semi-permeable and hydrophobic, and protects the organisms inside from contact with aqueous fluids (see, column 3, lines 6-8). In the invention of Resnick '724, it is essential for the microbes to be encapsulated in wax. This is because the microbes utilized by Resnick '724 (i.e., yeast) are incapable of regulating osmosis. As described by Resnick '724 in column 2, lines 31-38,

A third aspect of the invention brought about through such placement in the microcontainer is that the viable cell(s) maintains its integrity by preventing it the organism [sic] from osmosing too much water across

its cell membrane, preventing the organism's demise (these species lack water intake control mechanisms such that when placed in water the microbe has a propensity to take on so much water that it eventually explodes (and dies)).

In other words, the microbes inside the wax microshell must be protected from coming into any contact with water; otherwise the microbes will die. In contrast, the microbes recited in claim 1 come into direct contact with the body of water. Resnick '724 fails to disclose or suggest this feature of the present invention as recited in claim 1.

In summary, Resnick '724 fails to disclose a device wherein the microbes associated with the floater come into direct contact with the body of water. Withdrawal of the instant rejection is therefore respectfully requested.

Conclusion

Applicants respectfully submit that the above remarks and/or amendments fully address and overcome the outstanding rejections. For the foregoing reasons, Applicants respectfully request the Examiner to withdraw all of the outstanding rejections and objections, and to issue a Notice of Allowance indicating the patentability of claims 1-21. Early and favorable action of the

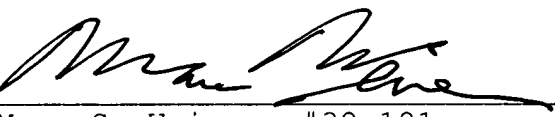
Appl. No. 10/602,281

merits of the present application are thereby respectfully requested.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 
Marc S. Weiner, #32,181

MSW/^{KLR}KLR

P.O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000